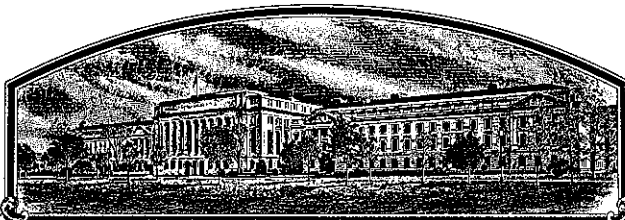


No.

9300234



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pioneer Hi-Bred International, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'9252'



Attest:

Marsha A. Stanton

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-ninth day of September in the year of our Lord one thousand nine hundred and ninety-five.

Samuel J. Hittman
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Pioneer Hi-Bred International, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.	3. VARIETY NAME 9252
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP) 700 Capital Square 400 Locust Des Moines, IA 50309		5. PHONE (include area code) (515) 270-3582	FOR OFFICIAL USE ONLY PVPO NUMBER 9300234 Filing Date June 9, 1993 <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. Filing and Examination Fee: \$2325.00 Date June 7, 1993 Certificate Fee: \$300.00 Date Sept. 5, 1995
6. GENUS AND SPECIES NAME Glycine max	7. FAMILY NAME (Botanical) Leguminosae		
8. CROP KIND NAME (Common Name) Soybean	9. DATE OF DETERMINATION October 1987		
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Iowa		12. DATE OF INCORPORATION 1926	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS			
John Grace 7301 NW 62nd Ave., P.O. Box 85 Johnston, IA 50131-0085		Mike Roth (copy) 700 Capital Square, 400 Locust Street Des Moines, IA 50309	

PHONE (include area code):

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse)

a. ☒ Exhibit A, Origin and Breeding History of the Variety.

b. ☒ Exhibit B, Novelty Statement.

c. ☒ Exhibit C, Objective Description of Variety.

d. ☒ Exhibit D, Additional Description of Variety.

e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.

f. ☒ Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office **6/11/93**

g. ☒ Filing and Examination Fee (\$2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act.)
☐ YES (If "YES," answer items 16 and 17 below) ☒ NO (If "NO," skip to item 18 below)

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

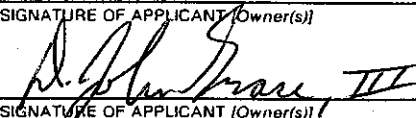
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☐ YES (If "YES," through ☐ Plant Variety Protection Act ☐ Patent Act. Give date: _____) ☒ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☐ YES (If "YES," give names of countries and dates) ☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT (Owner(s)) 	CAPACITY OR TITLE Soybean Research Manager	DATE 6/3/93
SIGNATURE OF APPLICANT (Owner(s))	CAPACITY OR TITLE	DATE

9252 Soybean (April, 1993)

Exhibit A: Variety 9252 evolved from a cross of varieties 2981 x A2943. It is an F5-derived plant selection which was advanced to the F5 generation by modified single seed descent. Variety 9252 was selected from a progeny row yield test during the summer of 1987 in Illinois. It has undergone 5 subsequent years of testing and purification. 9252 has been observed by the breeders to be uniform and stable for all plant traits from generation to generation, with no evidence of variants.

Six and a half acres of 9252 (breeder's seed) were grown in 1991. One hundred forty-five acres of parent seed stock (foundation seed equivalent) were grown in 1992.

Exhibit B: Variety 9252 is most similar to varieties 9232, 9241, A2943, 9293, and 2981. Variety 9252 is significantly taller than 9241 (Table 1) and is significantly higher in protein (Table 2). Variety 9252 has a gray hilum and is susceptible to *Phytophthora megasperma*, whereas A2943 has an imperfect black hilum and has the *Rps1* gene conferring resistance to *Phytophthora megasperma*. Variety 9252 has a gray hilum, whereas 2981 has a yellow hilum and 9232 has a buff hilum.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) Pioneer Hi-Bred International, Inc.	TEMPORARY DESIGNATION	VARIETY NAME 9252
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) 700 Capital Square 400 Locust Des Moines, IA 50309		FOR OFFICIAL USE ONLY PVPO NUMBER 9300234

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ 2. SEED COAT COLOR: (Mature Seed)

1 = Yellow

2 = Green

3 = Brown

4 = Black

5 = Other (Specify) _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1 = Dull ('Corsoy 79'; 'Braxton')

2 = Shiny ('Nebsoy'; 'Gasoy 17')

★ 4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

★ 5. HILUM COLOR: (Mature Seed)

1 = Buff

2 = Yellow

3 = Brown

4 = Gray

5 = Imperfect Black

6 = Black

7 = Other (Specify) _____

★ 6. COTYLEDON COLOR: (Mature Seed)

1 = Yellow

2 = Green

★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:

1 = Low

2 = High

★ 8. SEED PROTEIN ELECTROPHORETIC BAND:

1 = Type A (SP1^a)2 = Type B (SP1^b)

★ 9. HYPOCOTYL COLOR:

1 = Green only ('Evans'; 'Davis')

2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')

3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')

4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

★ 10. LEAFLET SHAPE:

1 = Lanceolate

2 = Oval

3 = Ovate

4 = Other (Specify) _____

11. LEAFLET SIZE:

☐ 21 = Small ('Amsoy 71'; 'A5312')
3 = Large ('Crawford'; 'Tracy')

2 = Medium ('Corsoy 79'; 'Gasoy 17')

12. LEAF COLOR:

☐ 21 = Light Green ('Weber'; 'York')
3 = Dark Green ('Gnome'; 'Tracy')

2 = Medium Green ('Corsoy 79'; 'Braxton')

★ 13. FLOWER COLOR:

☐ 2

1 = White

2 = Purple

3 = White with purple throat

★ 14. POD COLOR:

☐ 2

1 = Tan

2 = Brown

3 = Black

★ 15. PLANT PUBESCENCE COLOR:

☐ 1

1 = Gray

2 = Brown (Tawny)

16. PLANT TYPES:

☐ 11 = Slender ('Essex'; 'Amsoy 71')
3 = Bushy ('Gnome'; 'Govan')

2 = Intermediate ('Amcor'; 'Braxton')

★ 17. PLANT HABIT:

☐ 3

1 = Determinate ('Gnome'; 'Braxton')

2 = Semi-Determinate ('Will')

3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

★ 18. MATURITY GROUP:

☐ 51 = 000
9 = VI2 = 00
10 = VII3 = 0
11 = VIII4 = I
12 = IX5 = II
13 = X

6 = III

7 = IV

8 = V

★ 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

★

☐ 1Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)

★

☐ 1Bacterial Blight (*Pseudomonas glycinea*)

★

☐ 0Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

★

☐ 1Brown Spot (*Septoria glycines*)Frogeye Leaf Spot (*Cercospora sojae*)

★

☐ 0

Race 1

☐ 0

Race 2

☐ 0

Race 3

☐ 0

Race 4

☐ 0

Race 5

☐

Other (Specify)

☐ 0Target Spot (*Corynespora cassiicola*)☐ 1Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)☐ 1Powdery Mildew (*Microsphaera diffusa*)

★

☐ 1Brown Stem Rot (*Cephalosporium gregatum*)☐ 1Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

- ★ ☒ 1 Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
- ☐ 0 Purple Seed Stain (*Cercospora kikuchii*)
- ☒ 1 Rhizoctonia Root Rot (*Rhizoctonia solani*)
- Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
- ★ ☒ 1 Race 1 ☒ 1 Race 2 ☒ 1 Race 3 ☒ 1 Race 4 ☒ 1 Race 5 ☐ 0 Race 6 ☒ 1 Race 7
- ☒ 1 Race 8 ☒ 1 Race 9 ☐ Other (Specify) _____

VIRAL DISEASES:

- ☒ 1 Bud Blight (Tobacco Ringspot Virus)
- ☒ 1 Yellow Mosaic (Bean Yellow Mosaic Virus)
- ★ ☒ 1 Cowpea Mosaic (Cowpea Chlorotic Virus)
- ☒ 1 Pod Mottle (Bean Pod Mottle Virus)
- ★ ☒ 1 Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
- ★ ☒ 1 Race 1 ☐ 0 Race 2 ☒ 1 Race 3 ☒ 1 Race 4 ☐ Other (Specify) _____
- ☐ 0 Lance Nematode (*Hoplolaimus Colombus*)
- ★ ☐ 0 Southern Root Knot Nematode (*Meloidogyne incognita*)
- ★ ☐ 0 Northern Root Knot Nematode (*Meloidogyne Hapla*)
- ☐ 0 Peanut Root Knot Nematode (*Meloidogyne arenaria*)
- ☐ 0 Reniform Nematode (*Rotylenchulus reniformis*)
- ☐ OTHER DISEASE NOT ON FORM (Specify): _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ★ ☒ 1 Iron Chlorosis on Calcareous Soil
- ☐ Other (Specify) _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ☒ 1 Mexican Bean Beetle (*Epilachna varivestis*)
- ☐ 0 Potato Leaf Hopper (*Empoasca fabae*)
- ☐ Other (Specify) _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	9241	Seed Coat Luster	A2943
Leaf Shape	9241	Seed Size	A2943
Leaf Color	9241	Seed Shape	9241
Leaf Size	A2943	Seedling Pigmentation	A2943

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
9252 Submitted	137	1.4	80.0			43.3	21.4	14.6	3
9241 Name of Similar Variety	134	1.6	75.4			41.5	21.6	15.8	3

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A₂ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

Table 1. Variety 9252 vs variety 9241 for height (cm).

9300234

Observations are from data taken from research plots. Plots were planted using a randomized complete block design. Planted plot length was 21 feet, trimmed to 15 feet. Plot width was four 30 inch rows, or ten feet. Height was measured as the average distance from the ground to the top pod of representative plants in the plot.

1990

REP	9252 X1	9241 X2	X1-X2	(X1-X2)**2
1	64.8	57.1	7.7	59.29
2	76.2	76.2	0	0
3	94	86.4	7.6	57.76
4	77.5	67.3	10.2	104.04
5	81.3	78.7	2.6	6.76
6	68.6	68.6	0	0
7	94	63.5	30.5	930.25
8	83.8	81.3	2.5	6.25
9	66	55.9	10.1	102.01
sum	706.2	635	71.2	1266.36
ave	78.47	70.56	7.911	

$$SD^{**2} = (1266.36 - (71.2^{**2})/9) / (9*8)$$

$$SD^{**2} = 9.76512$$

$$SD = 3.12492$$

$$t = 7.911 / 3.12492$$

$$t = 2.53162 \text{ * significant .05 level}$$

$$DF = 8$$

n groups of individuals = 9

ave height of 9252 = 78.5 cm
ave height of 9241 = 70.6 cm

1991

REP	9252 X1	9241 X2	X1-X2	(X1-X2)**2
1	78.7	71.1	7.6	57.76
2	77.5	68.6	8.9	79.21
3	88.9	88.1	0.8	0.64
4	66	63.5	2.5	6.25
5	77.5	64.8	12.7	161.29
6	101.6	81.3	20.3	412.09
7	48.3	41.9	6.4	40.96
8	73.7	66	7.7	59.29
9	76.2	68.6	7.6	57.76
10	76.2	71.1	5.1	26.01
11	68.6	63.5	5.1	26.01
sum	833.2	748.5	84.7	927.27
ave	75.75	68.05	7.7	

$$SD^{**2} = (927.27 - (84.7^{**2})/11) / (11*10)$$

$$SD^{**2} = 2.50073$$

$$SD = 1.58137$$

$$t = 7.7 / 1.58137$$

$$t = 4.8692 \text{ ** significant .01 level}$$

$$DF = 10$$

n groups of individuals = 11

ave height of 9252 = 75.7 cm
ave height of 9241 = 68.0 cm

9300234

1992

REP	9252 X1	9241 X2	X1-X2	(X1-X2)**2
1	91.4	81.3	10.1	102.01
2	89.7	91.4	-1.7	2.89
3	83.8	78.7	5.1	26.01
4	96.5	88.9	7.6	57.76
5	85.1	86.4	-1.3	1.69
6	80	73.7	6.3	39.69
7	87.6	77.5	10.1	102.01
8	92.7	80	12.7	161.29
9	91.4	86.4	5	25
10	66.9	66.9	0	0
11	72.8	67.7	5.1	26.01
12	91.4	81.3	10.1	102.01
13	88.9	88.9	0	0
14	94	83.8	10.2	104.04
sum	1212	1133	79.3	750.41
ave	86.59	80.92	5.664	

sum 1212 1133 79.3 750.41
ave 86.59 80.92 5.664

SD**2= (750.41 - (79.3**2)/14)/(14*13)
SD**2= 1.65512
SD= 1.28652
t = 5.664 / 1.28652
t = 4.40281 ** significant .01 level
DF= 13

n groups of individuals = 14

ave height of 9252 = 86.6 cm

ave height of 9241 = 80.9 cm

OVERALL

	9252 X1	9242 X2	X1-X2	(X1-X2)**2
sum	2752	2516	235.2	2944.04
ave	80.93	74.01	6.918	

SD**2= (2944.04 - (235.2**2)/34)/(34*33)
SD**2= 1.17381
SD= 1.08342
t = 6.918 / 1.08342
t = 6.38499 ** significant .01 level
DF= 33

n groups of individuals = 34

ave height of 9252 = 80.9 cm

ave height of 9241 = 74.0 cm

8

Table 2. Variety 9252 vs 9241 for percent protein (0% moisture basis). 9300234

Oil and protein values are from bulked seed harvested from research plots. Research plots were planted using a randomized complete block design. Planted plot length was 21 feet, trimmed to 15 feet. Plot width was four 30 inch rows, or ten feet. Protein values were determined using a Tecator 1255 spectrophotometer. Data is reported for the years indicated.

1990

	9252	9241		
REP	X1	X2	X1-X2	(X1-X2)**2
1	44.55	42.54	2.01	4.0401
2	45.26	42.98	2.28	5.1984
3	44.49	41.34	3.15	9.9225
4	42.46	40.47	1.99	3.9601
5	43.78	41.72	2.06	4.2436
6	43.1	41.06	2.04	4.1616
7	44.31	43.25	1.06	1.1236
8	45.09	41.84	3.25	10.5625
9	42.52	40.43	2.09	4.3681
10	43.36	41.39	1.97	3.8809
11	42.21	39.37	2.84	8.0656
sum	481.1	456.4	24.74	59.527
ave	43.74	41.49	2.249	

SD**2= (59.527 - (24.74**2)/11)/(11*10)
 SD**2= 0.03531
 SD= 0.18792
 t = 2.249 / 0.18792
 t = 11.9684 ** significant .01 level
 DF= 10

n groups of individuals = 11

ave protein of 9252 = 43.74%
 ave protein of 9241 = 41.49%

1991

	9252	9241		
REP	X1	X2	X1-X2	(X1-X2)**2
1	42.9	40.9	2	4
2	44.5	42.6	1.9	3.61
3	42.1	39.7	2.4	5.76
4	42.6	39.8	2.8	7.84
5	42.8	41.2	1.6	2.56
6	43.41	42.13	1.28	1.6384
7	41.97	40.46	1.51	2.2801
8	42.07	40.8	1.27	1.6129
sum	342.4	327.6	14.76	29.3014
ave	42.79	40.95	1.845	

SD**2= (29.3014 - (14.76**2)/8)/(8*7)
 SD**2= 0.03695
 SD= 0.19222
 t = 1.845 / 0.19222
 t = 9.59819 ** significant .01 level
 DF= 7

n groups of individuals = 8

ave protein of 9252 = 42.79%
 ave protein of 9241 = 40.95%

1992

	9252	9241		
REP	X1	X2	X1-X2	(X1-X2)**2
1	43.7	43	0.7	0.49
2	44	43.1	0.9	0.81
3	43.4	41.9	1.5	2.25
4	42.4	41.2	1.2	1.44
5	43.6	42.7	0.9	0.81
6	43.3	42.1	1.2	1.44
7	41.6	41.4	0.2	0.04
8	42.4	41.6	0.8	0.64
sum	344.4	337	7.4	7.92
ave	43.05	42.13	0.925	

SD**2= (7.92 - (7.4**2)/8)/(8*7)
 SD**2= 0.0192
 SD= 0.13855
 t = 0.925 / 0.13855
 t = 6.67623 ** significant .01 level
 DF= 7

n groups of individuals = 8

ave protein of 9252 = 43.05%
 ave protein of 9241 = 42.12%

OVERALL

	9252	9241		
	X1	X2	X1-X2	(X1-X2)**2
sum	1168	1121	46.9	96.7484
ave	43.25	41.52	1.737	

SD**2= (96.7484 - (46.9**2)/27)/(27*26)
 SD**2= 0.02177
 SD= 0.14754
 t = 1.737 / 0.14754
 t = 11.7733 ** significant .01 level
 DF= 26

n groups of individuals = 27

ave protein of 9252 = 43.25%
 ave protein of 9241 = 41.52%

9252 Soybean (April, 1993)

Exhibit D: In Exhibit C we have identified 9252 as susceptible to bacterial blight, brown spot, pod and stem blight, rhizoctonia root rot, bud blight, yellow mosaic, cowpea mosaic, pod mottle, seed mottle, and iron chlorosis. This does not mean that 9252 is any worse for these problems than other varieties of similar maturity. Rather, we do not consider 9252 to be immune to them. Therefore, we have chosen to be conservative and have identified the line as 'susceptible'.

Table 3. Isozyme information for 9252

<u>ACO2</u>	<u>ACO3</u>	<u>ACO4</u>	<u>ACP</u>	<u>DIA</u>	<u>ENP</u>	<u>IDH1</u>	<u>IDH2</u>	<u>MDH</u>	<u>MPI</u>	<u>PGM</u>	<u>PHI</u>
1	1	1	A	B	A	2	1	B	B	1	1

9252 is a mid group II variety. If group II maturities are divided in tenths, the relative maturity for 9252 is 2.5.

Exhibit E: Variety 9252 was developed by Pioneer Hi-Bred International, Inc., for which it solicits a certificate of protection.